

What is claimed is:

1. A server of a client-server vehicle data communication system, comprising:
a service contents managing section for managing a plurality of service contents
5 to be provided to a client terminal of a vehicle, wherein the service contents managing
section includes a cache identifier providing section for assigning each service content
provided to the client terminal a cache identifier which indicates a data cache state in the
client terminal, so as to manage the data cache state of the service content.
- 10 2. A server as claimed in claim 1, wherein the assigned cache identifier is selected
from the group consisting of:
an identifier for indicating that the service content is not stored in the client
terminal;
an identifier for indicating that the service content is temporarily stored until an
15 engine of the vehicle is stopped;
an identifier for indicating that the service content is stored even after the
engine of the vehicle is stopped;
an identifier for indicating that the service content is stored while a travel
distance of the vehicle from where the vehicle obtained the service content is within a
20 predetermined value; and
an identifier for indicating that the service content is stored from when the
vehicle obtains the service content until a predetermined time has elapsed.
3. A client terminal using a server as claimed in claim 1 of a client-server vehicle
25 data communication system, said client terminal comprising:

a cache state managing section for managing the data cache state of the service content provided from the server, according to the cache identifier assigned to the service content.

- 5 4. A client terminal using a server as claimed in claim 2 of a client-server vehicle data communication system, said client terminal comprising:

a cache state managing section for managing the data cache state of the service content provided from the server, according to the cache identifier assigned to the service content.

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5. A client terminal as claimed in claim 3, further comprising:

a request sending section for sending a request signal for the service content to the server, where the service content is provided from the server when the request signal is received by the server;

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the cache identifier indicates a condition for caching of the service content; and when a request for the service content is again issued in the client terminal while the condition for the caching is satisfied and the service content is cached in a memory of the client terminal, the service content in the memory is read out without sending the request signal for the service content to the server.

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6. A client-server vehicle data communication system comprising:

a server as claimed in claim 1; and

a client terminal which uses the server and includes a cache state managing section for managing the data cache state of the service content provided from the server,

25 according to the cache identifier assigned to the service content.

7. A client-server vehicle data communication system comprising:
a server as claimed in claim 2; and
a client terminal which uses the server and includes a cache state managing
5 section for managing the data cache state of the service content provided from the server,
according to the cache identifier assigned to the service content.

8. A client-server vehicle data communication system as claimed in claim 6,
wherein:
10 the service content is provided from the server to the client terminal when a
request signal for the service content is sent from the client terminal to the server;
the cache identifier indicates a condition for caching of the service content; and
when a request for the service content is again issued in the client terminal
while the condition for the caching is satisfied and the service content is cached in a
15 memory of the client terminal, the service content in the memory is read out without
sending the request signal for the service content to the server.

9. A client terminal of a vehicle for obtaining data provided from a server which
manages a plurality of service contents, said client terminal comprising:
20 a cache state managing section for recognizing a cache identifier which
indicates a data cache state of data of a service content obtained from the server and
managing the data cache state indicated by the cache identifier.

10. A client terminal as claimed in claim 9, wherein the cache identifier is selected
25 from the group consisting of:

an identifier for indicating that the service content is not stored in the client terminal;

an identifier for indicating that the service content is temporarily stored until an engine of the vehicle is stopped;

5 an identifier for indicating that the service content is stored even after the engine of the vehicle is stopped;

an identifier for indicating that the service content is stored while a travel distance of the vehicle from where the vehicle obtained the service content is within a predetermined value; and

10 an identifier for indicating that the service content is stored from when the vehicle obtains the service content until a predetermined time has elapsed.